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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,708	07/15/2003	Jose L. Ramos	017750-801	4909

7590 09/14/2010  
BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
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Alexandria, VA 22313-1404

EXAMINER
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PAN, YUWEN

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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09/14/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/618,708	<b>Applicant(s)</b> RAMOS, JOSE L.	
	<b>Examiner</b> YUWEN PAN	<b>Art Unit</b> 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11 and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 11 and 17 is/are allowed.
- 6) ☒ Claim(s) 16 and 18-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-7, 8, 9, 11, and 17 are allowed.
2. The following is an examiner's statement of reasons for allowance: see applicant's remarks filed on 06/30/10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khorram (U.S. US007088969B2, hereinafter Khorram) in view of Kintis et al (US006049250A, hereinafter Kintis).

Per claim 18, Khorram teaches that an amplifier includes a plurality of transistors connected such that each amplifier has a common drain connection and a common gate connection (see figure 9, see abstract, column 10 and lines 60-column 11 and lines 25). Khorram does not teach wherein the drain of the first amplifier is connected to the gate of second amplifier.

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Kintis teaches such limitation (see figures 1,2 and corresponding paragraphs). It would have been obvious to combine the references to allow the gain to be varied without affecting the bandwidth of the device (see column 2 and lines 35-47).

Same arguments apply, *mutatis mutandis*, to claim 22 (obvious the terminals refer to the drain, gate and source, wherein the voltage applies on the gate control the current flow between the source and the drain)

Per claim 19, Kintis further teaches the drain of the first amplifier is connected to the gate of the second amplifier through a capacitor (see figure 2, item C1).

Same arguments apply, *mutatis mutandis*, to claim 23.

Per claim 20, Khorram further teaches that a first bias current (see figure 9 and item 220) connected to the common drain connection; a second bias current connected to the common gate connection (see figure 9 and item 236); a ground connected to the source of the first amplifier and the source of the second amplifier (see figure 9 and corresponding paragraphs)

Same arguments apply, *mutatis mutandis*, to claim 24.

Per claim 21, Khorram further teaches a third amplifier including a source, a drain, and a gate (see figure 9 and item 228), wherein the gate of the third amplifier is connected to the common gate connection, wherein the drain of the third amplifier is connected to the common drain connection; a second bias current connected to the common gate connection (see figure 9 and item 236).

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Same arguments apply, *mutatis mutandis*, to claim 25.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kintis and Khorram as applied to claim 18 above, and further in view of Saxler (US007030428B2, hereinafter Saxler).

Khorram doesn't teach that the amplifier is fabricated in GaN-based material. Saxler teaches that High electron mobility transistors can be fabricated in the gallium nitride/aluminum gallium nitride (GaN/AlGaN) material (see column 1 and lines 63). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Saxler with Thurlington's device to have the potential to generate large amounts of PF power for the power amplifier.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuwen Pan/

Primary Examiner, Art Unit 2618